



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/566,951

12/04/2006

Gary Christopher

40263-10100

9349

21788 7590 04/10/2008

RYNDAK & SURI LLP  
200 W. MADISON STREET  
SUITE 2100  
CHICAGO, IL 60606

EXAMINER

UPTON, CHRISTOPHER

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

04/10/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/566,951	<b>Applicant(s)</b> CHRISTOPHER, GARY	
	<b>Examiner</b> Christopher Upton	<b>Art Unit</b> 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,6-15 and 17-22 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,6-15 and 17-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/5/07</u> . | 6) <input type="checkbox"/> Other: ____.  |

1. Claim 22 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim 22 is a method claim which fails to limit the structure of the parent apparatus claim.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 4, 10, 12, 17 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cabrera, Clarke or Williamson, each in view of Tanaka, Pall, Hirakawa, Ramos, or Koslow.

Clarke, Williamson and the two patents to Cabrera each disclose a gravitational separation chamber in series with a filter, in a linear sequence with a snaking flow path, substantially as recited in the instant claims. The instant claims differ in recitation of the filter having wool fibers and a synthetic component.

It is known to make filters out of composite materials, which include wool and synthetic components, as exemplified by Tanaka (see column 4, lines 56-61), Pall (see column 4, lines 38-61), Hirakawa (see column 3, lines 3-24), Ramos (see column 3, lines

25-46) and Koslow (see paragraph 18). It would therefore have been obvious for one skilled in the art to use such a material for the filters of Clarke, Williamson or Cabrera, depending on the characteristics of the material to be filtered, absent a declaration showing unexpected results. With respect to claim 4, it is submitted that the specific ratio of the components would also have been an obvious matter of optimization for one skilled in the art, absent a declaration showing unexpected results for the particular ratio.

Note that Williamson, in particular, discloses that the specific filter material may be selected depending on the contaminants (column 7, lines 46-56).

4. Claims 1, 4, 7, 8, 10, 12, 17 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mathews in view of Tanaka, Pall, Hirakawa, Ramos, or Koslow.

Mathews discloses a gravitational separation chamber in series with a pair of filters, in a linear sequence with a snaking flow path, substantially as recited in the instant claims. The instant claims differ in recitation of the filter having wool fibers and a synthetic component.

It is known to make filters out of composite materials, which include wool and synthetic components, as exemplified by Tanaka, Pall, Hirakawa, Ramos and Koslow. It would therefore have been obvious for one skilled in the art to use such a material for the filters of Mathews, depending on the characteristics of the material to be filtered, absent a declaration showing unexpected results. Note that Mathews discloses the use

of polypropylene, but also states that other materials may be used (column 5, lines 5-15).

5. Claims 1, 4, 7, 8, 10, 12, 17, 18 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ott or McClure, each in view of Tanaka, Pall, Hirakawa, Ramos, or Koslow.

Ott and McClure each disclose a separator having a plurality of gravitational separation chambers in series with a plurality of filters, in a linear sequence with a snaking flow path, substantially as recited in the instant claims. The instant claims differ in recitation of the filter having wool fibers and a synthetic component.

It is known to make filters out of composite materials, which include wool and synthetic components, as exemplified by Tanaka, Pall, Hirakawa, Ramos and Koslow. It would therefore have been obvious for one skilled in the art to use such a material for the filters of Ott or McClure, depending on the characteristics of the material to be filtered, absent a declaration showing unexpected results.

6. Claims 1, 2, 4, 6, 10, 12, 17 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Use in view of Tanaka, Pall, Hirakawa, Ramos, or Koslow.

Use discloses a gravitational separation chamber having a filter stage (100) in series with a final filter (400), in a linear sequence with a snaking flow path, substantially as recited in the instant claims. The instant claims differ in recitation of the filter having wool fibers and a synthetic component.

It is known to make filters out of composite materials, which include wool and synthetic components, as exemplified by Tanaka, Pall, Hirakawa, Ramos and Koslow. It would therefore have been obvious for one skilled in the art to use such a material for the filters of Use, depending on the characteristics of the material to be filtered, absent a declaration showing unexpected results. Note that Use discloses the use of a composite filter material for the basket filter (see column 9, lines 26-39), and the use of a variety of materials for the final filter (see column 15, lines 37-44).

7. Claims 9, 11, 13-15 and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ott as applied to claims 1 and 18 above, and further in view of Horsley.

Claims 9, 11, 13 and 14 differ from Ott as applied to claim 1 in recitation of the configuration being a circular path with concentric chambers for the gravitational separator and the filter. Such a concentric configuration of plural separation units is disclosed by Horsely. It is submitted that the specific configuration would have been an obvious matter of design for one skilled in the art, depending on the site where the separator is to be located, and therefore fails to patentably distinguish over the prior art of record.

Claims 15 and 19-21 further differ in recitation of conduits, in an "inverted periscope" configuration connecting the chambers of the gravitational separator. Such connections are known, as exemplified by Horsely in figures 4-6. It is therefore submitted that the substitution of such conduits for the overflow weirs of Ott would

have been an obvious substitution of one known overflow connection for another, and therefore fails to patentably distinguish over Ott.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Mondragon, Pattee and Armstrong were cited in the PCT search report, and have been made of record. Other references of interest include Anderson and White.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Upton whose telephone number is 571-272-1169. The examiner can normally be reached on 8:30-6:00, off every other Monday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Christopher Upton/  
Primary Examiner, Art Unit 1797

Christopher Upton  
Primary Examiner  
Art Unit 1797